

REMARKS

Claims 1-7 were twice rejected under §112, first paragraph. The claims have been amended to include the nitrogen gas and to provide that the heating of the susceptor does not necessarily occur after the first time period, although the lowering of the device onto the heated susceptor does occur after the first time period, as explained at page 7, lines 6-13. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 1-7 were rejected as unpatentable over AGNELLO et al. 6,255,217 in view of HUANG et al. 6,355,571 and the admitted prior art. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 1 includes the steps of removing the surface oxide by introducing RF power while the gas is present and without heating the semiconductor device, stopping the RF power after a first time period, heating the susceptor to about 400°C and, after the first time period, lowering the semiconductor device onto the heater susceptor. That is, the method provides that the semiconductor device takes two temperatures: a first temperature when the RF power is introduced ("without heating the semiconductor device") and a second temperature after the first time period when the semiconductor device is lowered onto the heater susceptor.

AGNELLO et al. do not disclose that the semiconductor device takes two temperatures. The reference discloses (column 4, lines 19-33) an exposure step that is carried out at 20-600°C for a period of 1-3600 seconds. The exposure step is preferably carried out at 360-400°C. The exposure step is when the RF plasma is introduced. The reference discloses one temperature that is in the range of 20-600° and is preferably 360-400°C. If the preferable range is ignored and the temperature of the exposure step is taken to be 20°C ("without heating"), then the reference does not disclose the step of heating the susceptor to about 400°C and lowering the semiconductor device onto the heated susceptor (which would heat the semiconductor device). On the other hand, if the exposure step is carried out at the preferred range following the recommendation of AGNELLO et al., then the reference does not disclose that the RF plasma is introduced without heating the semiconductor device.

Accordingly, by contrast to the invention of claim 1, there is but one exposure temperature disclosed in the reference, and it is either the above-noted first temperature ("without heating") or the above-noted second temperature after the first time period when the semiconductor device is lowered onto the heated susceptor. The reference does not disclose both.

HUANG et al. and the admitted prior art have been carefully considered, but do not make up for this shortcoming. There is no motivation in these references to modify the process

taught by AGNELLO et al. to include the two temperature process claimed herein.

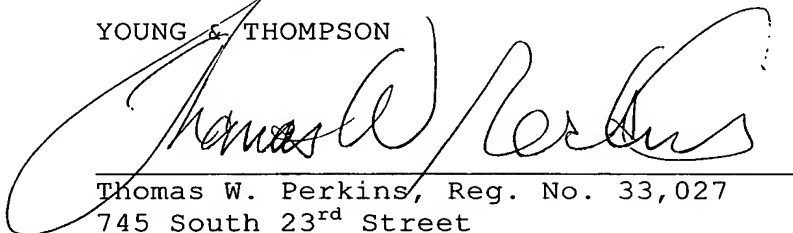
Since the references do not disclose all that is claimed, the claims would not be obvious to one of skill in the art and the claims avoid the rejection under §103.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

A large, stylized handwritten signature in black ink, appearing to read 'Thomas W. Perkins', is written over a horizontal line.

Thomas W. Perkins, Reg. No. 33,027
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

TWP/lk